



## Commentary

# Talking about screening, brief intervention, and referral to treatment for adolescents: An upstream intervention to address the heroin and prescription opioid epidemic

Brett R. Harris DrPH<sup>1</sup>

Department of Health Policy, Management, and Behavior, School of Public Health, State University of New York at Albany, One University Place, Rensselaer, NY 12144, United States

## ARTICLE INFO

## Article history:

Received 25 March 2016

Received in revised form 8 July 2016

Accepted 12 August 2016

Available online 18 August 2016

## Keywords:

Heroin

Prescription opioids

Drug overdose

Screening, brief intervention, and referral to treatment

SBIRT

Adolescents

## ABSTRACT

Overdose deaths from heroin and prescription opioids have reached epidemic proportions in recent years. Deaths specifically involving heroin have more than tripled since 2011, and for the first time, drug overdose deaths have exceeded deaths resulting from motor vehicle accidents. This epidemic has been receiving attention among policymakers and the media which has resulted in efforts to provide training and education on prescribing practices, increase the use of naloxone, and expand the availability and use of Medication-Assisted Treatment (MAT). What is not being talked about is the relationship between early initiation of less harmful substances such as alcohol and marijuana and subsequent use of prescription opioids and heroin. Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a model which shows promise for preventing initiation and reducing risky substance use among adolescents before it progresses to use of harder drugs such as heroin. Unfortunately, though recommended by the American Academy of Pediatrics, health care providers are not even screening their adolescent patients for substance use. The heroin and prescription opioid epidemic and the dissemination of information regarding federal, state, and local efforts to combat the epidemic provide a platform for increasing awareness of SBIRT, garnering support for more research, and facilitating uptake and integration into practice. It is time to add SBIRT to the conversation.

© 2016 Elsevier Inc. All rights reserved.

Death by drug overdose is a major public health problem which has reached epidemic proportions in the United States. There were 47,055 deaths due to drug overdose in 2014, 3,073 more than in 2013, representing an increase of 6.5% (Rudd et al., 2016). Between 2000 and 2014, drug overdose deaths increased by 137%. For the first time, the number of overdose deaths have exceeded the number of deaths from motor vehicle accidents – and not only minimally but by 50% (Rudd et al., 2016).

Opioid use has contributed significantly to the increase in drug overdoses in recent years. In 2014, 61% of drug overdoses involved opioids representing a 14% increase from 2013 (Rudd et al., 2016). Overdoses specifically involving heroin increased by 26% between 2013 and 2014 and more than tripled since 2010 (Rudd et al., 2016). This phenomenon has been explained by past misuse of prescription opioids, increased availability of heroin, and its low cost and high purity (Rudd et al., 2016). In addition, fentanyl, a synthetic opioid with high lethality, has recently been laced with heroin and has likely contributed to the sharp rise in heroin overdose deaths (Cicero et al., 2014).

This drastic rise in drug overdose deaths, as well as deaths by suicide, drove an increase in the United States mortality rate in 2015. This was the first increase in ten years (NCHS, 2016). For middle-aged whites, the mortality rate has increased steadily since 1999 (Case & Deaton, 2015). In fact, if all-cause mortality had continued to decrease at the rate it had been between 1979 and 1998, half a million deaths would have been avoided, a number comparable to the number of lives lost in the United States to the AIDS epidemic through mid-2015 (Case & Deaton, 2015). A New York Times analysis of over 60 million death certificates collected by the Centers for Disease Control and Prevention (CDC) found a similar rise in mortality among young white Americans ages 25–34 (Kolata & Cohen, 2016).

Now that this epidemic has impacted the nation across race, gender, age, and region, it has attracted the attention of the media, filmmakers, and federal, state, and local lawmakers. Documentaries have highlighted the lives of individuals addicted to heroin and prescription opioids (i.e., Okazaki, 2015; Gaviria, 2016), and newspapers have reported on those who have lost their lives to this addiction as well as the loved ones they left behind (i.e., Seelye, 2015). In 2014, Peter Shumlin, the Governor of Vermont, dedicated his entire State of the State address to fighting the heroin epidemic (State of Vermont, 2014).

All of this attention has led to action. In early 2015, the United States Department of Health and Human Services (HHS) dedicated \$133

Abbreviations: SBIRT, (screening, brief intervention, and referral to treatment).

E-mail address: [bharris@albany.edu](mailto:bharris@albany.edu).<sup>1</sup> Permanent Address: 1 Lower Sage Hill Lane, Albany, NY 12204, United States.

million toward three priority areas to tackle the opioid crisis: 1) Providing training and educational resources to assist health professionals in making informed prescribing decisions, 2) increasing the use of naloxone to reverse overdoses, and 3) expanding the use of Medication-Assisted Treatment (MAT) (US DHHS, 2015). In March 2016, significant progress was made to address priority one as the CDC released new, voluntary guidelines for primary care physicians on how to responsibly prescribe painkillers such as Vicodin and Oxycontin (CDC, 2016). To complement this effort, the Food and Drug Administration (FDA) has targeted consumers by adding a new boxed warning on immediate-release opioid pain medications – totaling 228 brand name and generic products – indicating the serious risks of misuse, abuse, addiction, overdose, and death (US DHHS, 2016).

Additionally, as the epidemic continues to worsen, policymakers have responded. The Comprehensive Addiction and Recovery Act (CARA), signed into law by President Obama on July 22, 2016, focuses on community prevention, overdose response, treatment, and enforcement and supply reduction. Activities that are supported under CARA include expanding the availability of naloxone and MAT, increasing the number of prescription medication disposal sites, and strengthening prescription drug monitoring programs (White House, 2016). Additionally, the Mayor of Ithaca, New York, Svante Myrick, outlined a comprehensive plan for addressing the heroin and prescription opioid epidemic which drew national attention for its inclusion of a supervised injecting facility so that, in the event of an overdose, naloxone may be administered immediately to reverse the overdose (Wilkinson & Fan, 2016).

It is evident that the portrayal of this epidemic has finally sparked a conversation in the past few years. Community forums on the opioid epidemic, hosted by Michael Botticelli, Director of the White House Office for National Drug Control Policy, are being held across the country to focus on best practices for preventing and treating heroin use and prescription drug abuse (White House Office of the Press Secretary, 2016). Though this is very positive, from a public health perspective it is not enough. The conversation, and the subsequent proposals and actions, are focused on preventing overdose deaths among those using opioids. However, most addictions start with early initiation of alcohol and marijuana use. In fact, 90% of people addicted to alcohol or other drugs started using before the age of 18 (CASA, 2011), and young adults who use alcohol and marijuana are two to three times more likely to subsequently abuse prescription opioids (Fiellin et al., 2013). For these reasons, the conversation about tackling this epidemic should also strategically include upstream efforts to prevent adolescents from using and abusing any substance, before they progress to use of harder drugs such as heroin.

On the 2014 National Survey on Drug Use and Health, conducted with 17,046 adolescents ages 12–17 (80% response rate), 11.5% reported current (past-month) drinking, 6.1% reported current binge drinking, 1.1% reported current heavy drinking, and 7.4% reported current marijuana use. When considering the entire nation's adolescent population, these results indicate that approximately 2.9 million adolescents drink, 1.5 million engage in binge drinking, 257,000 drink heavily, and 1.8 million use marijuana (Center for Behavioral Health Statistics and Quality, 2015).

An upstream intervention which may be used to prevent heroin and prescription opioid overdose deaths as well as the many other negative consequences of alcohol and drug use (i.e., motor vehicle accidents, suicide, homicide, sexually transmitted diseases, unwanted pregnancy, and poor school performance and dropout) (Schweer, 2009) is Screening, Brief Intervention, and Referral to Treatment (SBIRT). SBIRT integrates universal screening using a standardized instrument into clinical protocol to identify individuals across a continuum of substance use. Those who are not using alcohol or drugs receive education and positive reinforcement, those who are experimenting receive brief advice, and those exhibiting risky use and experiencing negative consequences receive brief intervention by a healthcare professional

immediately following the screening. Referrals to specialty treatment are provided when necessary (SAMHSA-HRSA, 2015).

According to the American Academy of Pediatrics, adolescents may derive the most benefit from SBIRT, because they are at highest risk of experiencing the acute and chronic health consequences of substance use (AAP, 2016). Though research is limited, the emerging research has found that SBIRT for adolescents reduces alcohol and marijuana use, decreases initiation, reduces intentions to use, and lowers perceived prevalence of use. Studies have also reported that adolescents are willing to discuss use with providers and are satisfied with the services they receive (D'Amico et al., 2008; Harris et al., 2012a; Grenard et al., 2007). Based on these results and the low cost and minimal risk involved with SBIRT as compared to other interventions and treatments, the American Academy of Pediatrics recommends increasing capacity for SBIRT, because there are population-level benefits to be gained, even from small reductions in substance use. They also advocate for continued research to determine the most effective brief intervention strategies for adolescents (AAP, 2016).

Nevertheless, fewer than half of pediatric providers report screening their adolescent patients for substance use, only 16% use standardized instruments, and only 30% provide brief intervention (Harris et al., 2016; Harris et al., 2012b). Many factors contribute to the failure to follow practice guidelines such as time constraints, lack of self-efficacy, and perceptions that it is not their responsibility to treat substance use (Harris et al., 2016; Sterling et al., 2012). Still, all of these factors are preceded by a basic lack of awareness of SBIRT on the part of clinicians and decision makers (Harris, 2016) and limited availability of funding. That is why the momentum in the fight against the heroin and prescription opioid overdose epidemic should be leveraged to raise awareness of SBIRT as an upstream preventive intervention among policymakers, practice administrators, and clinicians.

Community Catalyst and the Conrad N. Hilton Foundation, through the Substance Use Prevention priority area (Conrad N. Hilton Foundation, 2016), have made the effort to add SBIRT to the political conversation. Community Catalyst teamed consumer advocates with state and local policymakers which led to the passing of a bill in Massachusetts requiring SBIRT in schools (Commonwealth of Massachusetts, 2016). To have similar results on a larger scale, SBIRT should be described – alongside prescriber education, naloxone, MAT, and even supervised injection facilities, all of which grab media attention – as a specific strategy to address the prescription opioid and heroin overdose epidemic in that it has the potential to prevent adolescents who are risky users of, experimenting with, or only just thinking about initiating use of alcohol and marijuana from progressing to use of heroin and prescription opioids. Disseminating information about SBIRT in this way has the potential to increase support for continued research, attract funding to translate this research into practice, and strengthen the infrastructure required for successful implementation. No one intervention can successfully put an end to drug overdose deaths, but taking a multi-pronged approach, with SBIRT serving as an upstream primary and secondary prevention strategy for all adolescents in healthcare and school settings, can go a long way toward saving lives.

#### Conflict of interest statement

The author declares there is no conflict of interest.

#### Role of funding source

There was no funding involved in the preparation of this commentary.

#### Acknowledgments

None.

## References

- AAP Committee on Substance Use and Prevention, 2016. Substance use screening, brief intervention, and referral to treatment. *Pediatrics* 138 (1), e2016210. <http://dx.doi.org/10.1542/peds.2016-1210>.
- Case, A., Deaton, A., 2015. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proc. Natl. Acad. Sci.* 112 (49), 15078–15083. <http://dx.doi.org/10.1073/pnas.1518393112>.
- Center for Behavioral Health Statistics and Quality, 2015. Results From the 2014 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-50, HHS Publication No. (SMA) 15-4927. Substance Abuse and Mental Health Services Administration, Rockville, MD.
- Centers for Disease Control and Prevention, 2016. CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016. MMWR. (Retrieved from) <http://www.cdc.gov/media/modules/dpk/2016/dpk-pod/r6501e1er-ebook.pdf>.
- Cicero, T.J., Ellis, M.S., Surratt, H.L., Kurtz, S.P., 2014. The changing face of heroin use in the United States: a retrospective analysis of the past 50 years. *JAMA Psychiatry*. 71 (7), 821–826. <http://dx.doi.org/10.1001/jamapsychiatry.2014.366>.
- Commonwealth of Massachusetts, 2016. Bill H.4056: an act relative to substance use, treatment, education and prevention. (Retrieved from) <https://malegislature.gov/Bills/189/House/H4056>.
- Conrad N. Hilton Foundation, 2016. Substance use prevention: preventing youth substance use through access to early intervention. (Retrieved from) <https://www.hiltonfoundation.org/priorities/substance-use-prevention>.
- D'Amico, E.J., Miles, J.N.V., Stern, S.A., Meredith, L.S., 2008. Brief motivational interviewing for teens at risk of substance use consequences: a randomized pilot study in a primary care clinic. *J. Subst. Abus.* 35, 53–61. <http://dx.doi.org/10.1016/j.jsat.2007.08.008>.
- Fiellin, L.E., Tetrault, J.M., Becker, W.C., Fiellin, D., Hoff, R.A., 2013. Prior use of alcohol, cigarettes, and marijuana and subsequent abuse of prescription opioids in young adults. *J. Adolesc. Health* 52 (2), 158–163. <http://dx.doi.org/10.1016/j.jadohealth.2012.06.010>.
- Gaviria, M., 2016. Chasing Heroin [Motion Picture]. QGBH Educational Foundation, United States.
- Grenard, J.L., Ames, S.L., Wiers, R.W., Thush, C., Stacy, A.W., Sussman, S., 2007. Brief intervention for substance use among at-risk adolescents: a pilot study. *J. Adolesc. Health* 40 (2), 188–191. <http://dx.doi.org/10.1016/j.jadohealth.2006.08.008>.
- Harris, B.R., 2016. Communicating about screening, brief intervention and referral to treatment: messaging strategies to raise awareness and promote voluntary adoption and implementation among New York school-based health center providers. *Substance Abuse* <http://dx.doi.org/10.1080/08897077.2016.1175400> [e-pub ahead of print].
- Harris, S.K., Csemy, L., Sherritt, L., Starostova, O., Van Hook, S., Johnson, J., Knight, J.R., 2012a. Computer-facilitated substance use screening and brief advice for teens in primary care: an international trial. *Pediatrics* 129 (6). <http://dx.doi.org/10.1542/peds.2011-1624>.
- Harris, S.K., Herr-Zaya, K., Weinstein, Z., Whelton, K., Perfas, R., Castro-Donlan, C., Levy, S., 2012b. Results of a statewide survey of adolescent substance use screening rates and practices in primary care. *Subst. Abus.* 33, 321–326. <http://dx.doi.org/10.1080/08897077.2011.645950>.
- Harris, B.R., Shaw, B.A., Sherman, B.R., Lawson, H.A., 2016. Screening, brief intervention and referral to treatment for adolescents: attitudes, perceptions and practice of New York school-based health center providers. *Subst. Abus.* 37 (1), 161–167. <http://dx.doi.org/10.1080/08897077.2015.1015703>.
- National Center for Health Statistics (NCHS), 2016. Quarterly Provisional Estimates for Selected Cause of Death: United States-Quarter 4, 2015. National Vital Statistics System, Vital Statistics Rapid Release Program (Retrieved from) [http://www.cdc.gov/nchs/products/vsrr/mortality-dashboard.htm?\\_sm\\_au=iVVPnPsMSITkDtPM](http://www.cdc.gov/nchs/products/vsrr/mortality-dashboard.htm?_sm_au=iVVPnPsMSITkDtPM).
- Okazaki, S., 2015. Heroin: Cape Cod, USA [Motion Picture]. HBO, United States.
- Rudd, R.A., Aleshire, N., Zibbell, J.E., Gladden, R.M., 2016. Increases in drug and opioid overdose deaths – United States, 2000–2014. *MMWR* 64 (50), 1378–1382 (Retrieved from) <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm>.
- Schweer, L.H., 2009. Pediatric SBIRT: understanding the magnitude of the problem. *J. Trauma Nurs.* 16 (3), 142–147. <http://dx.doi.org/10.1097/JTN.0b013e3181b9e0ee>.
- Seelye, K.Q., 2015, October 20. In heroin crisis, white families seek gentler war on drugs. *New York Times* (Retrieved from) [http://www.nytimes.com/2015/10/31/us/heroin-war-on-drugs-parents.html?\\_r=0](http://www.nytimes.com/2015/10/31/us/heroin-war-on-drugs-parents.html?_r=0).
- State of Vermont, 2014. Governor Shumlin's 2014 state of the state address. (Retrieved from) <http://governor.vermont.gov/newsroom/state-of-state-speech-2014>.
- Sterling, S., Kline-Simon, A.H., Wibbelsman, C., Wong, A., Weisner, C., 2012. Screening for adolescent alcohol and drug use in pediatric health-care settings: predictors and implications for practice and policy. *Addict. Sci. Clin. Pract.* 7 (13). <http://dx.doi.org/10.1186/1940-0640-7-13>.
- Substance Abuse and Mental Health Services Administration-Healthcare Research and Services Administration (SAMHSA-HRSA) Center for Integrated Health Solutions, 2015H. SBIRT: screening, brief intervention and referral to treatment. (Retrieved from) <http://www.integration.samhsa.gov/clinical-practice/sbirt#why?>.
- The National Center on Addiction and Substance Abuse at Columbia University (CASA Columbia), 2011. Adolescent substance use: America's #1 public health problem. (Retrieved from) <http://www.centeronaddiction.org/addiction-research/reports/adolescent-substance-use>.
- United States Department of Health and Human Services (US DHHS), 2015. HHS takes strong steps to address opioid-drug related overdose, death and dependence. (Retrieved from) <http://www.hhs.gov/about/news/2015/03/26/hhs-takes-strong-steps-to-address-opioid-drug-related-overdose-death-and-dependence.html>.
- United States Department of Health and Human Services (US DHHS) Food and Drug Administration, 2016n. FDA announces enhanced warnings for immediate-release opioid pain medications related to risks of misuse, abuse, addiction, overdose and death. (Retrieved from) <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm491739.htm>.
- White House Office of the Press Secretary, 2016. Fact sheet: President Obama proposes \$1.1 billion in new funding to address the prescription opioid abuse and heroin use epidemic. (Retrieved from) <https://www.whitehouse.gov/the-press-office/2016/02/02/president-obama-proposes-11-billion-new-funding-address-prescription>.
- Wilkinson, G., Fan, L., 2016. The Ithaca Plan: A Public Health and Safety Approach to Drugs and Drug Policy.